REMARKS:

The Examiner presented rejections to the claims of the present application under 35 U.S.C. § 102(b), which are overcome by the arguments presented herein. The Examiner cited as prior art EP 182,940 (hereinafter, the '940 patent). The Examiner also presented rejections to the claims of the present application under 35 U.S.C. §103(a) as unpatentable under the '940 patent, and further in view of US 5,725,612 (hereinafter, the '612 patent).

The Examiner cited the '940 patent as disclosing the use of dibutylamine, and thus, arguably disclosing the present invention. In the previous correspondence, the Examiner argued that a reference is considered for all that it teaches and is not limited to the examples therein, citing In re Fracalossi, 215 USPQ 569 (CCPA 1982).

Applicants agree. In fact, applicants completely agree and respectfully point out that the glaring and obvious inconsistency in the '940 reference must, by law, be taken into consideration by the skilled artisan, for all that it teaches. (In re Hedges, 783 F.2d 1038, 1041, 228 USPQ 685, 687 (Fed. Cir. 1986) "[T]he prior art as a whole must be considered. The teachings are to be viewed as they would have been viewed by one of ordinary skill. ...") Further, a narrow selection from within a given reference is not a supportable basis for a rejection. (Lubrizol Corp. v. Exxon Corp., 896 F. Supp. 302, 322; 7 USPQ2d 1513, 1527 (N.D. Ohio 1988) "It is not permissible to pick and choose only so much of any given reference as will support a given position and ignore the reference in its totality.")

What does '940 taken as a whole teach the skilled artisan? The '940 reference shows on page 3, and requires on page 4, that the amine used to make the Mannich reaction product is a primary diamine or polyamine, since n =1 to 10. When n =1, the structure on pages 3 and 5 is a diamine, and when n> 1, the structure is a polyamine. The language of '940 does not say, "can be," but rather states "is..."

More importantly, the skilled artisan in reading the paragraph starting on page 5, line 9 of '940 quickly recognizes the error in this paragraph, wherein amines are listed which are not primary amines and which are not diamines or polyamines. Specifically, dibutylamine is a secondary monoamine which cannot possibly fit within the structure shown on pages 3 and 5.

While the Examiner is correct that a reference must be considered for all that it teaches, and this can include workable and unworkable embodiments, any unworkability bears on what

the reference teaches and on what would be obvious from it. Dennison Mfg. Co. v. Ben Clements & Sons, Inc. 467 F. Supp. 391, 415 n. 21, 203 USPQ 895, 914 n.21 (S.D.N.Y. 1979)

When considered for what it teaches, as required by Federal Circuit law, this '940 reference is *contradictory* and presents a clear mistake, and upon further reading within '940 the artisan is directed away from using in a Mannich reaction a secondary monoamine, such as dibutyl amine, and toward the di- or polyamines that contain a primary amine.

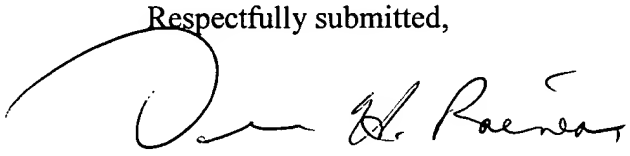
As a second issue, the '940 patent does not teach or render obvious the amendment submitted herein, whereby the hydroxyaromatic compound used to prepare the alkylated phenolic compound for reacting in the Mannich base reaction is expressly limited to ortho-cresol. A significantly cleaner product and more efficient process is thereby achieved, none of which is disclosed or suggested by the '940 patent. (See, Applicants' specification at page 5, lines 1-8, supporting this amendment)

Also, the Examiner asserted on page 3 of the recent Office Action that an alkyl group containing 40 carbon atoms would possess a molecular weight of approximately 560. Applicants have herein submit an amendment specifying that the molecular weight of the substituent to the ortho-cresol would have a number average molecular weight from about 900 to about 3000. This is supported by the specification on page 17, at line 21. Thus, this additional limitation over the prior art distinguishes the present application's novel selection of constituents.

As a final matter, a sheet of data is hereby attached to this correspondence that demonstrates the unexpected success of the present invention attained by the specific selection of dibutylamine as the amine constituent in the Mannich reaction. In particular, Applicants respectfully point out that when dibutylamine is used to form the Mannich reaction products of the four tests presented, a significant reduction in intake valve deposits is measured. For example, in Tests 1 and 2 where the treat rate was the same, the dibutylamine formulation yielded intake valve deposits of 25.7 and 27.6 mg, whereas other dialkylamines tested (dimethyl, diethyl, and dipropyl amines) demonstrated results ranging from 39.0 to 47.5 mg. Other similar amine compounds obtained valve deposit results in accordance with the dialkylamines, with the exception of the piperidine mannich amine which was similar to dibutylamine. These results clearly show that the success using dibutylamine was unexpected, particularly in view of the results obtained with only small variations in the number of carbon atoms on the alkyl constituents of the amine.

It is respectfully requested that the Examiner find the application presently in condition for allowance. Thank you for your attention to this matter, and please contact me at your convenience if you have any questions or require additional information.

Respectfully submitted,



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Ethyl Ref# DB111-205 to 213

TEST 1: CRC Ford 2.3L Intake Valve Deposits, 100 hours, Treat Rate=134.9

	H-6410 (DMAPA)	diethylamine	dipropylamine	dibutylamine	piperidine mannich amine	H-6410 (DMAPA)
Intake valve deposits **(mg)**	62.0	43.9	39.0	27.6	27.5	51.9

Ethyl Ref# DA115-241 to 250

TEST 2: CRC Ford 2.3L Intake Valve Deposits, 100 hours, Treat Rate=134.9

	H-6410 (DMAPA)	monomethyl ethanolamine (MME)	H-6410 (DMAPA)	dibutylamine	dimethylamine
Intake valve deposits **(mg)**	51.4	61.9	36.8	25.7	47.5

Ethyl Ref# DA115-255 to 265

TEST 3: CRC Ford 2.3L Intake Valve Deposits, 100 hours Treat Rate=93.7

	dibutylamine	monomethyl ethanolamine (MME)	H-6410 (DMAPA)
Intake valve deposits **(mg)**	120.9	196.2	145.0

Ethyl Ref# DB111-240 to 246, and DB 111-250

TEST 4: Ford 2.3L D.S.P. Intake Valve Deposits, 100 hours Treat Rate=72.0

	H-6421 (DMAPA)	dibutylamine
Intake valve deposits **(mg)**	105.9	69.0